Environmental Restoration (ER) Project
Cerro Grande Fire
Accelerated Action Information Sheet

Potential Release Site (PRS) 00-001
Sediment Traps in Mortandad Canyon

Mortandad Canyon is located on the Pajarito Plateau in the north-central part of the Laboratory. The canyon starts near the Chemistry and Metallurgy Research Building in Technical Area (TA)-3 and goes east-southeast across the Laboratory and San Ildefonso Pueblo land. It empties into the Rio Grande in White Rock Canyon. Mortandad Canyon and its tributaries have received liquid waste from various Laboratory operations since 1943.

PRS History: Discharges into Mortandad Canyon from early Laboratory operations were probably limited to outfalls from buildings associated with firing sites located at TA-4 and TA-5 in addition to Ten Site (now TA-35 on Ten Site Mesa). Other discharges came from outfalls at TAs 48, 50 and 60. The Laboratory installed a series of sediment traps in Mortandad Canyon between 1974 and 1986 to ensure that sediments transported by major runoff events were contained within the Laboratory boundaries. PRS 00-001 comprises the area of the old and current sediment traps in Mortandad Canyon. The site is approximately 900 feet long and a maximum of 200 feet wide along the Mortandad Canyon channel downstream from the confluence of Mortandad Canyon and Ten Site Canyon. The sediment traps are located approximately 1.75 miles downstream from the TA-50 Radioactive Liquid Waste Treatment Facility outfall and approximately 1.4 miles upstream from the Laboratory boundary. The sediment traps are operational and receive contaminated sediments. Mortandad Canyon is a surface pathway for contaminanted sediments migrating across and potentially off the Laboratory rather than a source of contaminants. The Mortandad Canyon pathway crosses American Indian and private land and may eventually contribute sediments, surface water, and groundwater to the Rio Grande. Contaminants of concern in Mortandad Canyon include radionuclides, organic chemicals, semi-volatile organic compounds, inorganic chemicals, and metals.

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PRS 00-001 is listed on the Hazardous and Solid Waste Amendments module of the Laboratory's Hazardous Waste Facility permit. The PRS is an active institutional site and is maintained at regular intervals.

Issues of Concern: The area upstream of PRS 00-001 burned during the Cerro Grande fire (a fire intensity rating of low to moderate). There is a potential for erosion or scouring at the site because of the sediment traps along the stream channel. There is no debris on the site that could enter the flood watercourse, nor are there any structures that could interfere with or be impacted by flood mitigation efforts.

Accelerated Action Status: The accelerated action for PRS 00-001 is complete. Approximately 384 cubic yards of sediment were removed from sediment trap #1 July 26-28, 2000. Approximately 1,308 cubic yards of sediment were removed from soil piles near sediment trap #1 July 31-August 8, 2000. And approximately 504 cubic yards of sediments were removed from sediment trap #3 August 8-11, 2000. All excavated soils were taken to TA-54, Area G.

Related Documents: LA-UR-97-329, "Mortandad Canyon Work Plan," September 1997.
"Mortandad Canyon Sediment Trap Maintenance," Draft Closeout Report, September 2000.